

a calculation step of calculating an encoding distortion produced at said first encoding step;

a storage step of storing the encoded speech segment encoded in said first encoding step in the speech segment dictionary, in a case where the encoding distortion produced at said first encoding step is less than a predetermined value;

a second encoding step of encoding the speech segment, in a case where the encoding distortion produced at said first encoding step is not less than the predetermined threshold value; and

a storing step of storing the encoded speech segment encoded in said second encoding step in the speech segment dictionary.

3. (Twice Amended). A speech information processing method of generating a speech segment dictionary for holding a plurality of speech segments, comprising:

a construction step of constructing quantization code books using one or more speech segments;

an encoding step of encoding a speech segment using one of the quantization code books constructed in said construction step; and

a storage step of storing the encoded speech segment encoded in said encoding step in the speech segment dictionary.

5. (Twice Amended). A speech information processing method of generating a speech segment dictionary for holding a plurality of speech segments, comprising:

a selection step of selecting an encoding method of encoding a speech segment from a plurality of encoding methods;  
an encoding step of encoding the speech segment by using the selected encoding method;  
and  
a storage step of storing the encoded speech segment in a speech segment dictionary,  
wherein [one of] the [plurality of] ~~selected~~ encoding method[s] uses [one of] a  $\mu$ -law scheme, scalar quantization, and linear predictive coding.

11. (Once Amended) [The apparatus according to claim 7,] A speech information processing apparatus for generating a speech segment dictionary for holding a plurality of speech segments, comprising:

selecting means for selecting an encoding method of encoding a speech segment from a plurality of encoding methods;  
encoding means for encoding the speech segment by using the selected encoding method;  
calculation means for calculating an encoding distortion produced by said encoding means;  
selection means for selecting an encoding method of the plurality of encoding methods in which the encoding distortion is smallest; and  
storage means for storing the encoded speech segment encoded using the encoding method selected by said selection means, in the speech segment dictionary,  
wherein [one of] the [plurality of] ~~selected~~ encoding method[s] uses [one of] a  $\mu$ -law scheme, scalar quantization, and linear predictive coding.

15. (Twice Amended). A speech information processing method of synthesizing speech by using a speech segment dictionary for holding a plurality of speech segments, comprising:

a construction step of constructing quantization code books using one or more speech segments;

an encoding step of encoding a speech segment using one of the quantization code books constructed in said construction step;

a storage step of storing the encoded speech segment encoded in said encoding step in the speech segment dictionary; and

a decoding step of decoding the encoded speech segment by using the quantization code books constructed in said construction step.

17. (Twice Amended). A speech information processing method of synthesizing speech by using a speech segment dictionary for holding a plurality of speech segments, comprising:

a selection step of selecting an encoding method of encoding a speech segment from a plurality of encoding methods;

an encoding step of encoding the speech segment by using the selected encoding method;  
and

a storage step of storing the encoded speech segment in a speech segment dictionary,  
wherein [one of] the [plurality of] ~~selected~~ [decoding] encoding method[s] uses [one of] a  $\mu$  law scheme, scalar quantization, and linear predictive coding.

23. (Once Amended) [The apparatus according to claim 19,] A speech information processing apparatus for synthesizing speech by using a speech segment dictionary for holding a

plurality of speech segments, comprising:

decoding means for decoding the speech segment by using a decoding step of decoding the speech segment by using a plurality of decoding methods for decoding the speech segment;

calculation means for calculating a decoding distortion produced by said decoding means;

selection means for selecting a decoding method of the plurality of decoding methods in which the decoding distortion is smallest; and

speech synthesizing means for synthesizing speech on the basis of the decoded speech segment decoded by the decoding method selected by said selection means,

wherein [one of] the [plurality of] selected decoding method[s] uses [one of] a  $\mu$ -law scheme, scalar quantization, and linear predictive coding.

Please add new claims 49-51 as indicated:

49 (New) A speech information processing apparatus for generating a speech segment dictionary for holding a plurality of speech segments, comprising:

first encoding means for encoding a speech segment;

calculating means for calculating an encoding distortion produced by said first encoding means;

storage means for storing the encoded speech segment encoded by said first encoding means in the speech segment dictionary, in a case where the encoding distortion produced by said first encoding means is less than a predetermined value;

second encoding means for encoding the speech segment, in a case where the encoding distortion produced by said first encoding means is not less than the predetermined threshold

value; and

storage means for storing the encoded speech segment encoded by said second encoding means in the speech segment dictionary.

Sub D 50 (New) A speech information processing apparatus for generating a speech segment dictionary for holding a plurality of speech segments, comprising:

construction means for constructing quantization code books using one or more speech segments;

encoding means for encoding a speech segment using one of the quantization code books constructed by said construction means; and

storage means for storing the encoded speech segment encoded by said encoding means in the speech segment dictionary.

51 (New) A speech information processing apparatus for synthesizing speech by using a speech segment dictionary for holding a plurality of speech segments, comprising:

construction means for constructing quantization code books using one or more speech segments;

encoding means for encoding a speech segment using one of the quantization code books constructed by said construction means;

storage means for storing the encoded speech segment encoded by said encoding means in the speech segment dictionary; and decoding means for decoding the encoded speech segment by using the quantization code books constructed by said construction means.



2. (Twice Amended). A speech information processing method of generating a speech segment dictionary for holding a plurality of speech segments, comprising:

a first encoding step of encoding a speech segment;

a calculation step of calculating an encoding distortion produced at said first encoding step;

a storage step of storing the encoded speech segment encoded in said first encoding step in the speech segment dictionary, in a case where the encoding distortion produced at said first encoding step is less than a predetermined value;

a second encoding step of encoding the speech segment, in a case where the encoding distortion produced at said first encoding step is not less than the predetermined threshold value;  
and

a storing step of storing the encoded speech segment encoded in said second encoding step in the speech segment dictionary.

3. (Twice Amended). A speech information processing method of generating a speech segment dictionary for holding a plurality of speech segments, comprising:

a construction step of constructing quantization code books using one or more speech segments;

an encoding step of encoding a speech segment using one of the quantization code books constructed in said construction step; and

a storage step of storing the encoded speech segment encoded in said encoding step in the speech segment dictionary.

5. (Twice Amended). A speech information processing method of generating a speech segment dictionary for holding a plurality of speech segments, comprising:

a selection step of selecting an encoding method of encoding a speech segment from a plurality of encoding methods;

an encoding step of encoding the speech segment by using the selected encoding method;  
and

a storage step of storing the encoded speech segment in a speech segment dictionary,  
wherein the selected encoding method uses a  $\mu$ -law scheme, scalar quantization, and linear predictive coding.

11. (Once Amended) A speech information processing apparatus for generating a speech segment dictionary for holding a plurality of speech segments, comprising:

selecting means for selecting an encoding method of encoding a speech segment from a plurality of encoding methods;

encoding means for encoding the speech segment by using the selected encoding method;  
calculation means for calculating an encoding distortion produced by said encoding means;

selection means for selecting an encoding method of the plurality of encoding methods in which the encoding distortion is smallest; and

storage means for storing the encoded speech segment encoded using the encoding method selected by said selection means, in the speech segment dictionary,

wherein the selected encoding method uses a  $\mu$ -law scheme, scalar quantization, and

linear predictive coding.

15. (Twice Amended). A speech information processing method of synthesizing speech by using a speech segment dictionary for holding a plurality of speech segments, comprising:

a construction step of constructing quantization code books using one or more speech segments;

an encoding step of encoding a speech segment using one of the quantization code books constructed in said construction step;

a storage step of storing the encoded speech segment encoded in said encoding step in the speech segment dictionary; and

a decoding step of decoding the encoded speech segment by using the quantization code books constructed in said construction step.

17. (Twice Amended). A speech information processing method of synthesizing speech by using a speech segment dictionary for holding a plurality of speech segments, comprising:

a selection step of selecting an encoding method of encoding a speech segment from a plurality of encoding methods;

an encoding step of encoding the speech segment by using the selected encoding method;  
and

a storage step of storing the encoded speech segment in a speech segment dictionary,  
wherein the selected encoding method uses a  $\mu$  law scheme, scalar quantization, and linear predictive coding.



23. (Once Amended) A speech information processing apparatus for synthesizing speech by using a speech segment dictionary for holding a plurality of speech segments, comprising:

decoding means for decoding the speech segment by using a decoding step of decoding the speech segment by using a plurality of decoding methods for decoding the speech segment;

calculation means for calculating a decoding distortion produced by said decoding means;

selection means for selecting a decoding method of the plurality of decoding methods in which the decoding distortion is smallest; and

speech synthesizing means for synthesizing speech on the basis of the decoded speech segment decoded by the decoding method selected by said selection means,

wherein the selected decoding method uses a  $\mu$ -law scheme, scalar quantization, and linear predictive coding.

49 (New) A speech information processing apparatus for generating a speech segment dictionary for holding a plurality of speech segments, comprising:

first encoding means for encoding a speech segment;

calculating means for calculating an encoding distortion produced by said first encoding means;

storage means for storing the encoded speech segment encoded by said first encoding means in the speech segment dictionary, in a case where the encoding distortion produced by said first encoding means is less than a predetermined value;

second encoding means for encoding the speech segment, in a case where the encoding distortion produced by said first encoding means is not less than the predetermined threshold value; and

storage means for storing the encoded speech segment encoded by said second encoding means in the speech segment dictionary.

50 (New) A speech information processing apparatus for generating a speech segment dictionary for holding a plurality of speech segments, comprising:

construction means for constructing quantization code books using one or more speech segments;

encoding means for encoding a speech segment using one of the quantization code books constructed by said construction means; and

storage means for storing the encoded speech segment encoded by said encoding means in the speech segment dictionary.

51 (New) A speech information processing apparatus for synthesizing speech by using a speech segment dictionary for holding a plurality of speech segments, comprising:

construction means for constructing quantization code books using one or more speech segments;

encoding means for encoding a speech segment using one of the quantization code books constructed by said construction means;

storage means for storing the encoded speech segment encoded by said encoding means in the speech segment dictionary; and decoding means for decoding the encoded speech segment by using the quantization code books constructed by said construction means.